



Ax40W2/4/8-series

User Guide



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Before attempting to connect or operate this product, read these instructions carefully.
Save this manual for future use.

Ax40W-series User Guide

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FCC

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

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1. Warnings and operation notes

Please read this guide carefully before you install the camera. Keep this guide for future reference.

Thank you for purchasing an i3 Ax40W-series Mini-dome (Wedge) Fixed camera. If the system needs to be modified or repaired, contact a certified i3 International Dealer/Installer. When serviced by unauthorized technician, the system warranty will be voided. Should you have any problems or questions regarding our products, contact your local i3 International Dealer/Installer.

1.1 Precautions

Installation and serving should be performed only by qualified and experienced technicians to conform to all local codes and to maintain your warranty.



WARNING! The use of CSA certified/ UL Listed Class 2 power adapter is required to ensure compliance.



WARNING! To reduce the risk of fire or electric shock, do not expose the product to rain or moisture.

When installing your Ax40W camera be sure to avoid:

- excessive heat, such as direct sunlight or heating appliances
- contaminants such as dust and smoke
- strong magnetic fields
- sources of powerful electromagnetic radiation such as radios or TV transmitters
- moisture and humidity
- areas with mechanical vibrations
- fluorescent lamps or objects that reflect light
- unstable light sources as this may cause flickering
- temperatures below -10° Celsius or 14° Fahrenheit and above 40° Celsius or 104° Fahrenheit.

1.2 Power Supply

When using 12VDC, ensure the supplied voltage meets the power consumption requirements of this camera before powering the camera on. Incorrect voltage may cause irreparable damage to the video camera and will effectively void the camera warranty. The camera also comes with the built-in PoE power support.



WARNING! DO NOT connect both PoE and DC12V power connectors at the same time. For DC power supply use, make sure the polarity is correct to avoid malfunction and / or camera damage.

1.3 Cleaning

- For maximum optical clarity, the camera or lens must remain clean. Use a soft, dry cloth to remove finger prints and dust from the dome cover.
- Use a blower to remove dust from the lens.
- Clean the body with a soft, dry cloth. If it is very dirty, use a cloth dampened with a small quantity of neutral detergent, then wipe dry.
- Do not use volatile solvents such as alcohol, benzene, or thinners, as they may damage the surface finish.

1.4 Servicing

To avoid electrical shock and to preserve the product warranty, DO NOT disassemble the camera. Refer servicing to qualified personnel only.

1.5 Safety Instructions

Equipment to be used in a Network Environment 0 per IEC TR62101. The camera is to be connected only to PoE network that complies with IEEE 802.3af without routing to the outside plant.

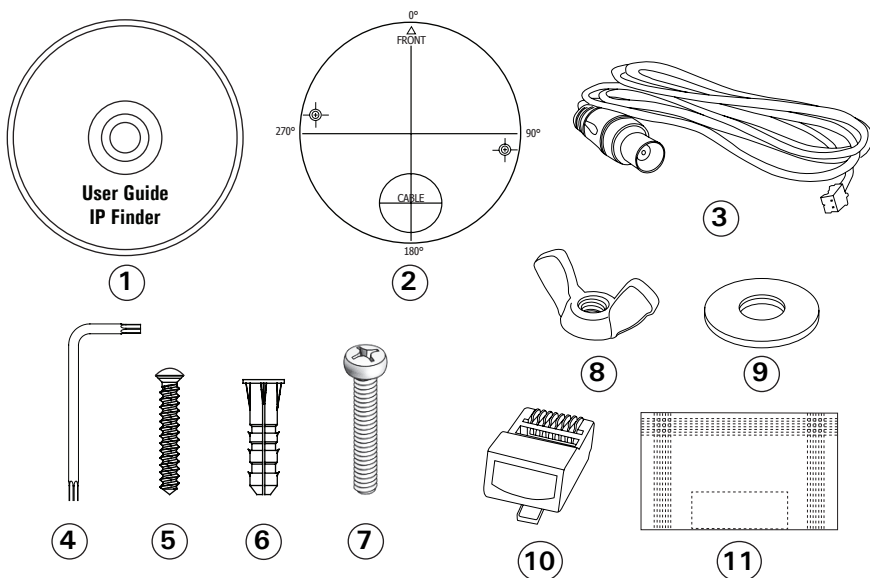
2. Unpacking

Check that the items received match those listed on the order form and packing slip. In addition to this manual and a fully assembled camera, the dome camera packing box includes:

1. User Manual CD x1
2. Guide Pattern sticker x1
3. 2nd video monitor output BNC cable x1
4. Hex key x1
5. Plastic Anchor x2
6. Round Head Screw (Tapping Type) x2
7. Flat Head Screw (Machine Type 30L) x2
8. Wing (Butterfly) nut x2
9. Washer x2
10. Standard RJ45 Connector x2
11. Desiccant in a package x1

If any parts are missing or damaged, contact the dealer you purchased the camera from.

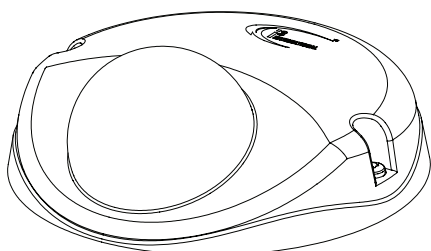
Accessories (*not to scale*)



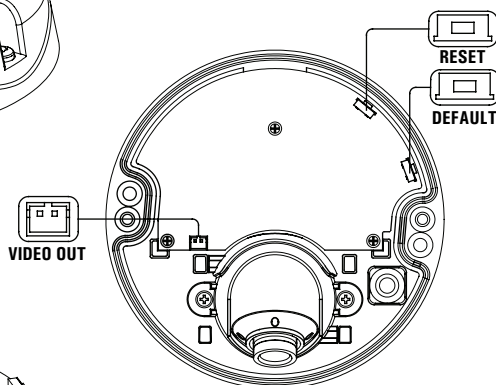
3. Installation

Use the appropriate brackets and equipment to mount the camera. After installing the camera, your network camera should be accessed from your local network.

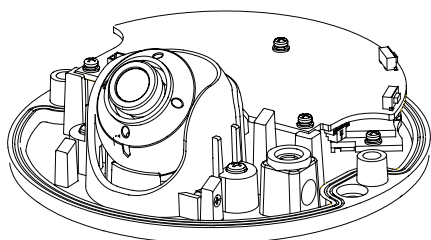
3.1 Camera Parts



Camera Dome



Camera Body - Top View



Camera Body - Side View

VIDEO OUT: Video output connector.

DEFAULT: Press and hold for 5 seconds to return to factory default.

RESET: Press to reboot system.

3.2 Power Connectors

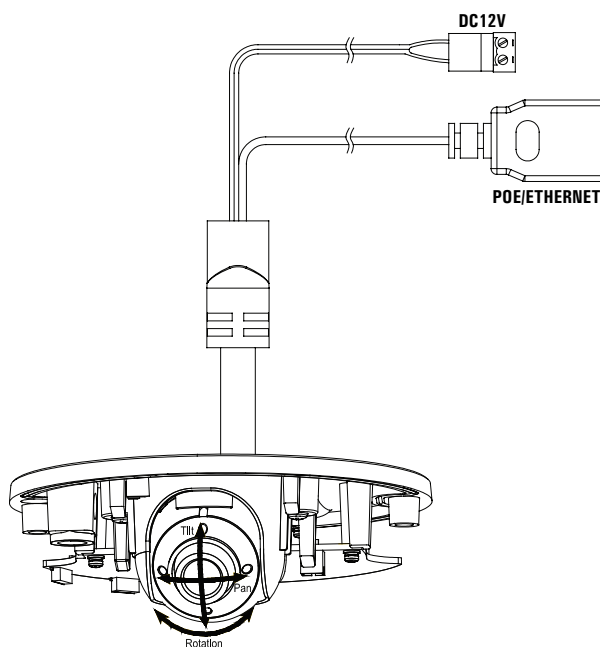
Connect the PoE or DC12V power connector.

PoE (IEEE 802.3af): Connect the RJ-45 connector to a PoE compatible network device that supplied power through the Ethernet cable.

DC12V: Connect the DC12V power connector to a DC12V power.



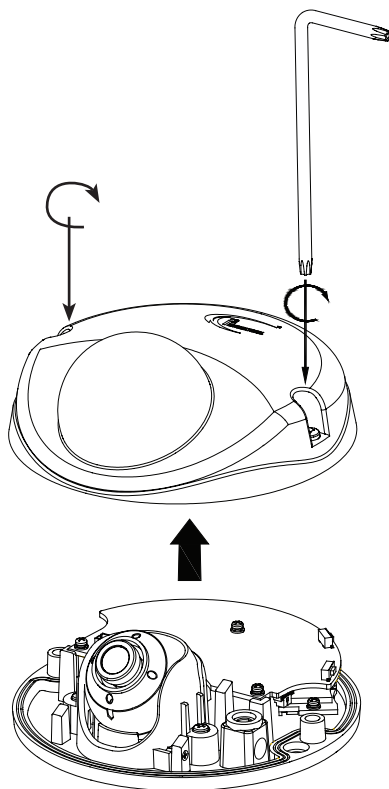
WARNING! DO NOT connect both PoE and DC12V power connectors at the same time. For DC power supply use, make sure the polarity is correct to avoid malfunction and / or camera damage.



3.3 Disassembling the Camera

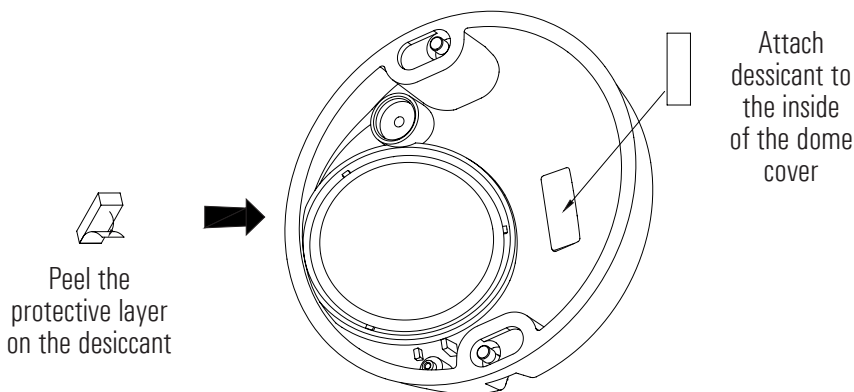
Before you mount and adjust the camera, follow these steps to disassemble the camera.

1. Using the hex key provided, loosen two screws on the cover.
2. Remove the dome cover.



3.4 Attaching the Desiccant

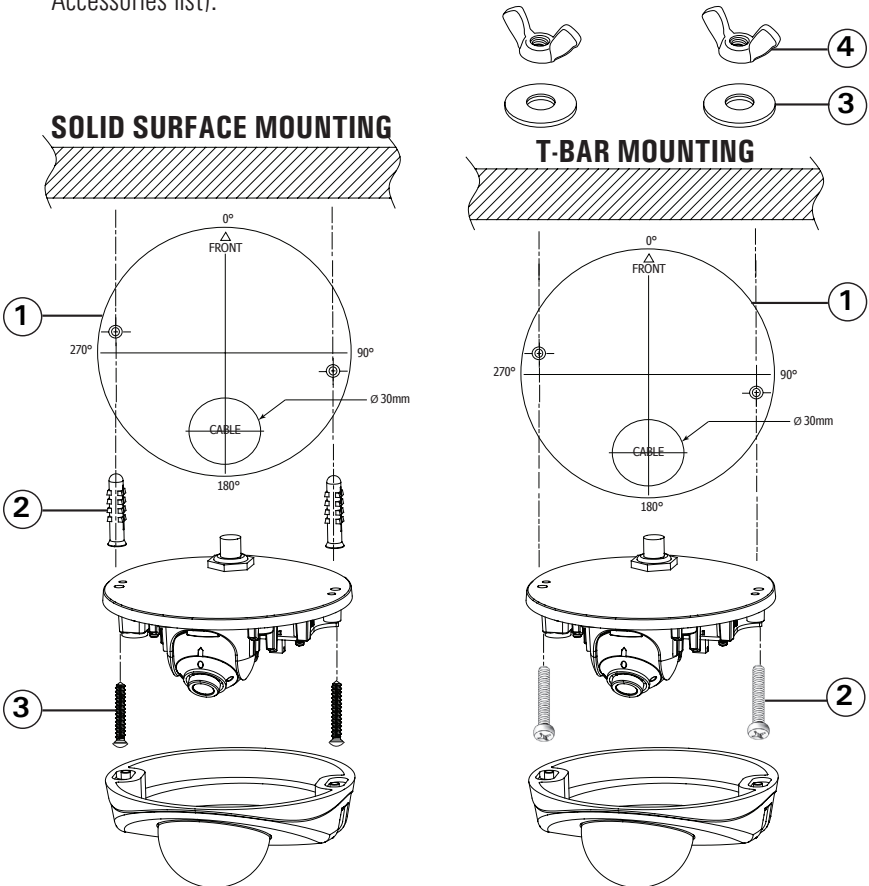
1. Take the desiccant out of the package (#11 on Accessories list on page 5)
2. Peel the protective layer revealing the adhesive surface on the desiccant and attach to the inside of the dome cover as shown in the diagram below.



3.5 Mounting the Camera

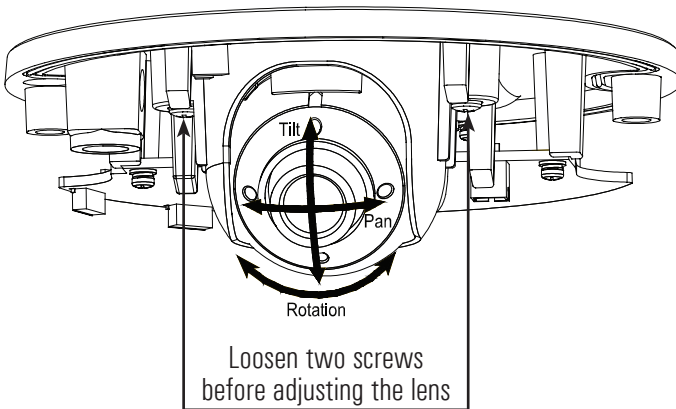
Depending on mounting surface, you can use a combination of Plastic Anchors and Tapping Screws or Machine Type Screws, Wing nuts and Washers.

1. Prepare the mounting surface. Adhere the Mounting Template (#2 on Accessories list on page 5) to the surface.
2. Drill two screw holes on the mounting surface as well as one round hole $\varnothing 30\text{mm}$ in diameter, according to the template.
3. If installing on solid surface, insert the Plastic Anchors (#6 on Accessories list) into two holes.
4. Pass all the signal cables through the $\varnothing 30\text{mm}$ hole.
5. If installing on solid surface, secure the camera body to the mounting surface with the Tapping Type Screws (#5 on Accessories list).
If installing on a T-bar ceiling, secure the camera body to the mounting surface with the Machine Type Screws (#7 on Accessories list) below the mounting surface and Wing Nut/Washer combo above the mounting surface (#8 & #9 on Accessories list).



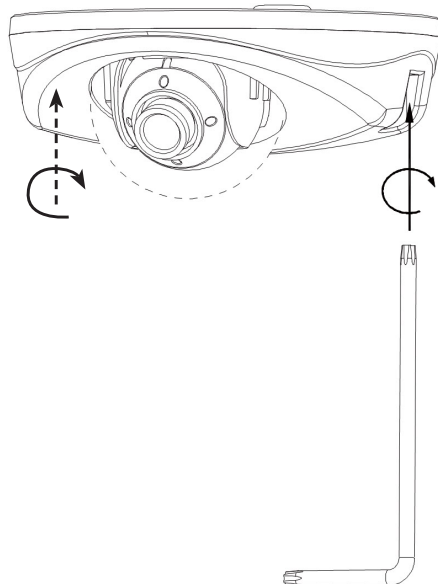
3.6 Adjusting the Camera Position

1. Loosen two screws, as shown in the picture below.
2. Adjust the lens to the desired shooting angle until the required view is achieved
3. Re-tighten the screws once the desired view is achieved.



3.7 Completing the Installation

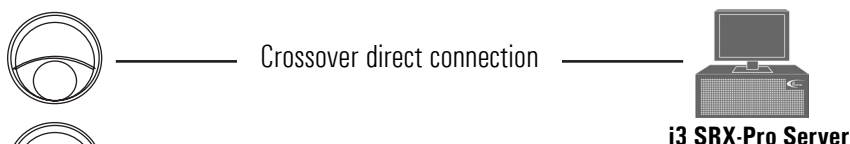
1. Re-attach the dome cover carefully
2. Re-tighten two screws that hold the camera dome cover. This completes the installation.



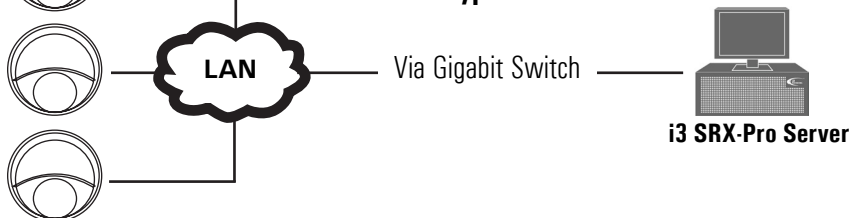
4. Connecting your IP Camera to the SRX-Pro Server

4.1 Camera Connection Options

Connection Type 1:



Connection Type 2:



4.2 Hardware/Software Requirements

The following requirements must be met to achieve a successful network connection with the Ax40W-series IP camera.

SRX-Pro Server:

- i3 SRX-Pro Version 3.0 or higher
- Latest GiPi adapter is installed. GiPi adapters can be downloaded from i3 FTP website. (Please contact i3 Technical Support for more information.)
- Windows XP, XPe, 7 Pro or 7e
- **Internet Explorer Version 8.0 or later**
- CPU: Intel Pentium Core 2 or higher
- Memory: 1GB or more
- VGA card--supporting Direct X 9.0 or above

Power Supply

Your camera requires a DC12V/PoE power supply. Make sure to use the correct power supply before connecting to this network camera. Use a RJ45 network connector to connect the camera to your computer or hub switch. Remember, If PoE (Power over Ethernet) connector is used, an electrical cable is not required

Note: Camera damages resulted from improper power application are NOT covered by the camera warranty.

Switch

A Gigabit Switch is required to monitor two or more cameras from the same SRX-Pro Server.

4.3 Configuring Internet Explorer for Video Display

Your Internet Explorer (v.8.0 or higher) must first be configured in order to properly display video stream from your Annexus camera.

Follow these instructions to configure your Internet Explorer browser.

Enable Cookies

1. In Internet Explorer window, click **Tools** -> **Internet Options**
2. Open **Privacy** tab, move the slider to "Low" or "Accept All Cookies"
3. Click **Apply**. Do not close the Internet Options window.

Adjust Internet Security Settings

1. Open **Security** tab in the Internet Options window
2. If the camera operates inside of the Intranet, click the Intranet icon;
If the camera operates outside outside of the Intranet, click the Internet icon.
3. Click **Custom Level**. Security Settings - Internet Zone window will be displayed.
4. Scroll down to the **ActiveX controls and plug-ins** radio buttons and configure as follows:
 - » Automatic prompting for ActiveX controls -> **Enable**
 - » Download signed ActiveX controls -> **Prompt** (recommended)
 - » Download unsigned ActiveX controls -> **Prompt**
 - » Initialize and script ActiveX not marked as safe for scripting -> **Prompt**
 - » Run ActiveX controls and plug-ins -> **Enable**
 - » Script ActiveX controls marked safe for scripting -> **Enable**
5. Click **OK** to save the Internet Security Settings
6. Close all Microsoft Internet Explorer Windows and open a new IE window. This will allow the new settings to take effect.

4.4 Using Annexus Finder to assign IP Address to your IP Camera

Camera's default IP address is **192.0.0.16**

Camera's default subnet mask address is **255.255.255.0**.

Default camera User Name and Password:

FW ver. i3_00_026-40 | User name: **admin** / Password: **1234**

FW ver. i3_00_39-51, or higher | User name: **i3admin** / PW: **i3admin**

To connect your Annexus camera to your SRX-Pro Server, follow these instructions:

1. Close SRX-Pro Server software by pressing **Alt+Shift+Ctrl+F4**.
2. Change the IP address on the onboard NIC (LAN) (or on NIC1 if your SRX-Pro Server has two onboard NIC cards) of your SRX-Pro Server to **192.0.0.XXX** to match the default IP range of your Annexus IP camera.
3. Connect the network cable from the SRX-Pro Server (crossover direct connection) or from the Gigabit switch to your Annexus camera.
4. Turn on your Annexus camera.
5. Locate the CD that came with your Annexus camera and insert it in the CD-ROM drive of your SRX-Pro Server.
6. Double-click "AnnexusFinder.exe" file to install Annexus Finder application. Annexus Finder application discovers all Annexus cameras connected to your network.
7. Follow the Annexus Finder installation instructions until the application has been successfully installed on your SRX-Pro Server.
8. Double-click Annexus Finder icon on the Desktop to launch the application. The application window will appear displaying a list of active network cameras

- Next, select desired camera in the Annexus Finder software by double-clicking it in the list and click **Edit**.

[illegible]

10. Enter the new IP address and Subnet Mask of the camera in the **Change IP Address** area. The new camera IP address must match the original range of your SRX-Pro LAN or NIC1 card. E.g. If your original SRX-Pro Server's IP address was 192.138.10.122, change your Annexxus camera's IP address to 192.138.10.XXX.

Remember: Annexus Cameras cannot share an IP address, each camera requires its own unique IP address.

11. Enter the default camera password in the Input Password field and click **Save**.

Change IP Address

IP Address: 192 . 0 . 0 . 17

Port: 80

Subnet Mask: 255 . 255 . 255 . 0

MAC Address: 18:f8:7a:00:c3:cb

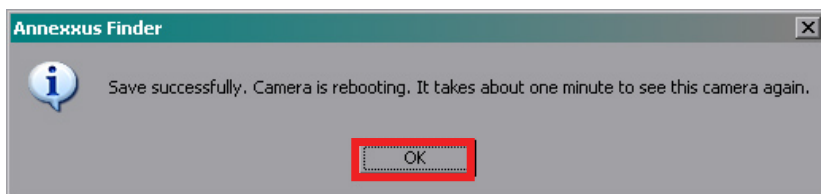
Firmware Version: P_01-00-59-10_i02_i3GUI_02

Input Password: XXXX

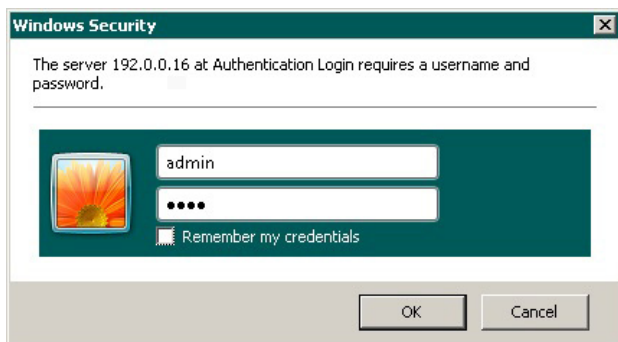
Serial Number:

Edit Save Cancel Close

12. Wait a few moments as the new IP address is being applied to your Annexus camera. Wait for the following message to be displayed. Click **OK** to close it.



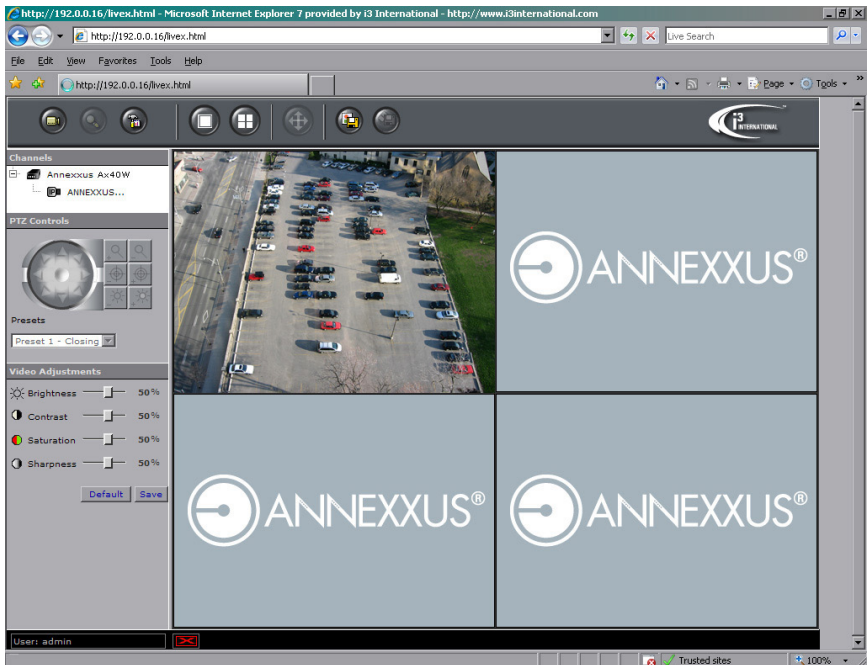
13. Repeat Steps 1-12 for all detected Annexus cameras in the Annexus Finder.
14. Now that the new IP address has been successfully assigned to your camera, make sure you can connect to it through the Internet Explorer:
15. Launch Internet Explorer on your SRX-Pro Server and enter the IP Address you have just assigned to your Annexus camera. The password window should be displayed.
16. Enter the default camera User Name and the default Password.



Default Login/Password:

FW ver. i3_00_026-40 | User name: **admin** / Password: **1234**
FW ver. i3_00_39-51, or higher | User name: **i3admin** / PW: **i3admin**

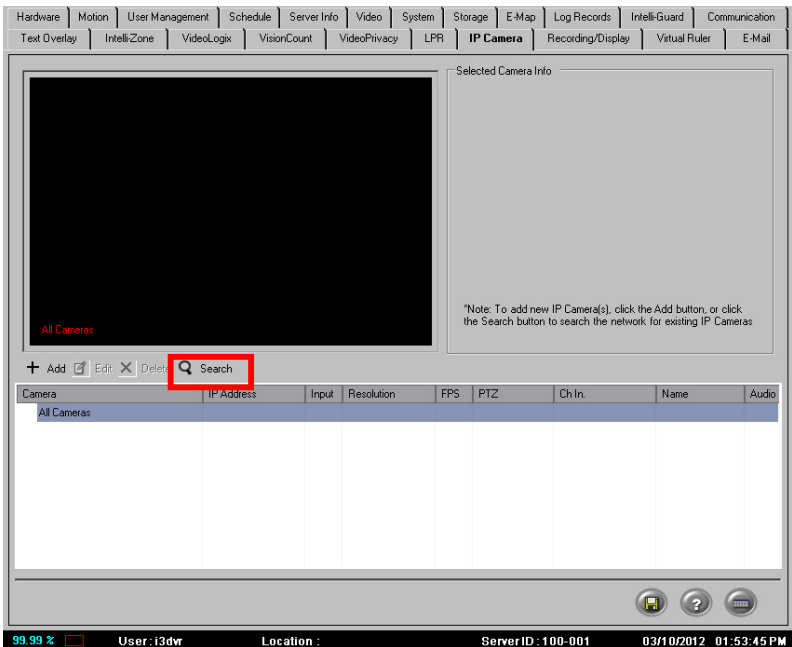
17. Annexus camera interface will be displayed in the Internet Explorer window. You should be able to see the camera image on the screen. If you do not see the camera image on the screen, call i3 International tech support for help.



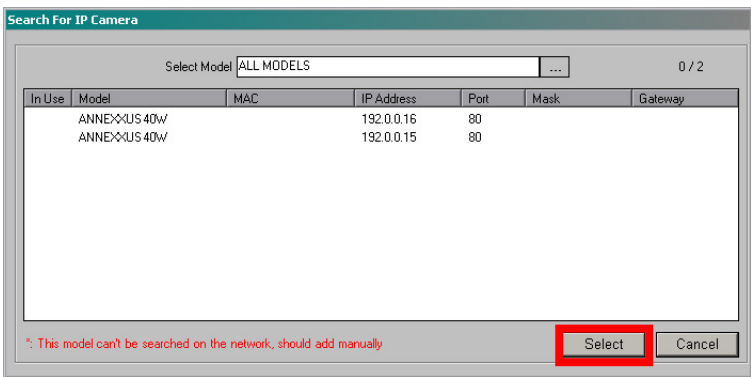
4.5 Adding your IP Camera to your SRX-Pro Server

1. Make sure that the latest version of GiPi updater is installed on your SRX-Pro Server. You can download the updates from <http://ftp.i3international.com/drivers/gipi>
Please contact i3 Technical Support team for access information.
2. Once the latest GiPi updater has been installed, restart i3 SRX-Pro Server software.

1. Log In and go to the Setup -> IP Camera tab.



2. Click the **Search** button to display connected Annexus cameras.



1. Select the detected camera in the list and click **Select**.
2. In the *Select IP Camera* window, enter the default camera User Name and the default Password, then click **Add**.

Default Login/Password:

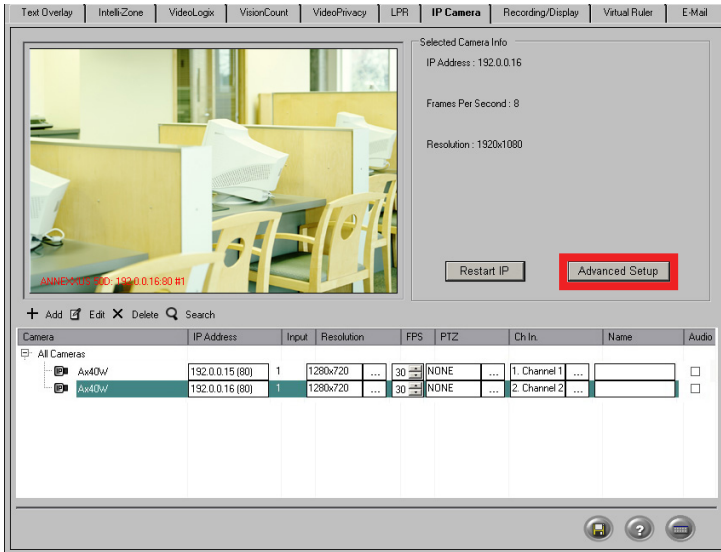
FW ver. i3_00_026-40 | User name: **admin** / Password: **1234**
 FW ver. i3_00_39-51, or higher | User name: **i3admin** / PW: **i3admin**

3. The selected camera will be added to the IP Camera list.
 Don't forget to assign the IP camera to the SRX-Pro video channel in the Your Annexxus camera is now connected to SRX-Pro Server and is ready to record. You may change resolution and frame rate for the Annexxus camera in the *IP Camera* tab menu or you may choose to configure the camera's advanced settings (see the following section).

Camera	IP Address	Input	Resolution	FPS	PTZ	Ch In.	Name	Audio
All Cameras								
Ax40w/	192.0.0.15 (80)	1	1280x720	30	NONE	1. Channel 1		<input type="checkbox"/>
Ax40w/	192.0.0.16 (80)	1	1280x720	30	NONE	2. Channel 2		<input type="checkbox"/>

5. Advanced Camera Setup

To access Annexus camera's advanced setup, go to Setup -> IP Camera tab, select the camera in the list of added IP cameras and click the **Advanced Setup** button.

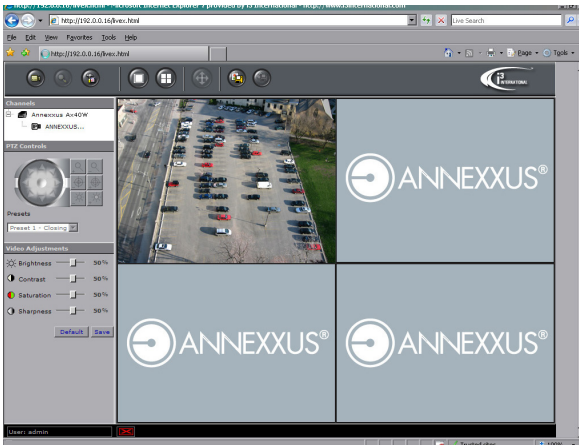


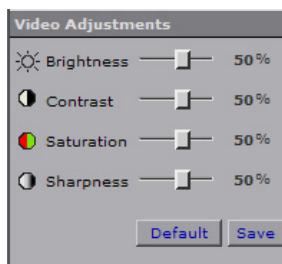
The password window should be displayed. Enter the default camera User Name and the default Password. Camera's user interface will be displayed in a separate Internet Explorer window.

Default Login/Password:

FW ver. i3_00_026-40 | User name: **admin** / Password: **1234**

FW ver. i3_00_39-51, or higher | User name: **i3admin** / PW: **i3admin**





In the main interface, you may adjust your camera's Brightness, Contrast, Saturation and Sharpness levels. Click **Save** to save adjusted settings or **Default** to set all settings back to 50%.

Note: This panel is enabled in the Live View mode only and is disabled when in the Setup mode.

Next, click the Setup button to access Annexus camera Setup features.

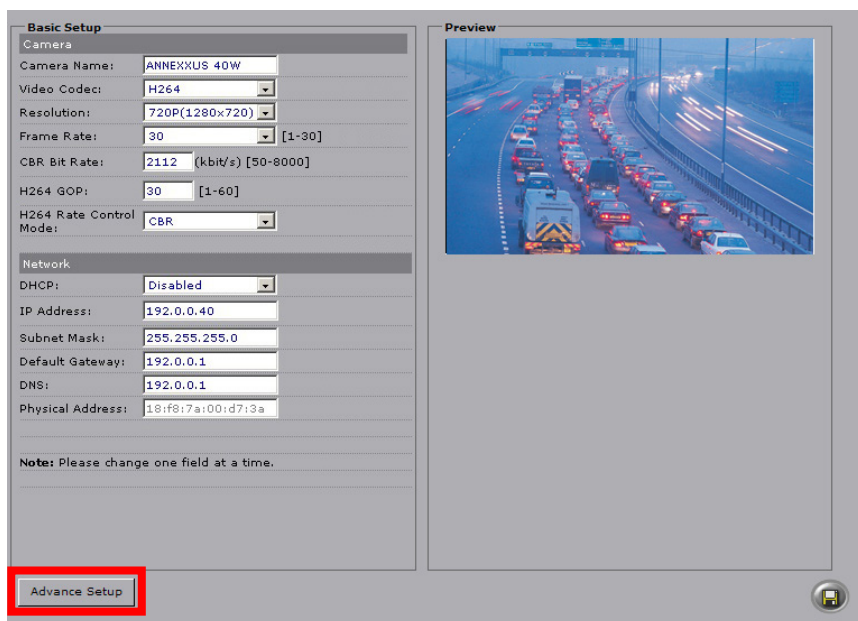


5.1 Basic Setup

You may switch to the advanced setup at any time by clicking the button in the bottom left-hand corner. To switch back to the Basic Setup, click the same button again.

Basic Setup is divided into Camera and Network settings.

After making any setting adjustments, remember to click the **Save** button



Camera Settings:

- Camera Name: The name of the camera will be displayed at the top of the Internet browser page.
- Video Codec: Set the compression mode to MJPEG or H264
- Resolution: Set the resolution of the recorded video to D1 (720x480), SVGA (800x600), or 720P (1280x720).
- Frame Rate: Set the frame rate for the recorded video to 1, 3, 7.5, 15, or 30 fps.
- Bit Rate (for H264 codec): Set the video bit rate from 50-8000 kbit/s
- H264 GOP (for H264 codec): Set the GOP rate from 1-60. The lower the number, the lower the compression the larger the video size. The higher the number, the higher the compression and the smaller the video size. GOP rate determines the i-Frame frequency.
- H264 Rate Control Mode (for H264 codec): VBR (Variable Bit Rate) or CBR (Constant Bit Rate).
 - » VBR (Variable Bit Rate) (recommended): This setting will produce a variable bit rate video stream, however the video quality will remain constant resulting in high quality video images. Network infrastructure must be able to provide the set bandwidth to account for bit rate variations.
 - » CBR (Constant Bit Rate): This setting will produce a constant bit rate video stream at the cost of video quality. The quality may deteriorate considerably when motion is detected. This setting is beneficial for installations with limited bandwidth.
- Quality (for MJPEG codec only): HIGH, MID, LOW

Network settings:

- DHCP: Enable or Disable to have the network automatically assign an IP address to the camera.
- IP Address: Manually enter the camera's IP address here.
This option should NOT be used if DHCP is enabled.
- Subnet Mask: Manually enter the camera's Subnet Mask here.
This option should NOT be used if DHCP is enabled.
- Default Gateway: Provide the IP address of the network's router if necessary.
Contact your network administrator for this information.
- DNS: Specify a DNS if necessary.
Contact your network administrator for this information.
- Physical Address: This is the camera's unique MAC Address. It may not be changed.

5.2 Video Setup

Switch to the Advanced Setup by clicking the **Advance Setup** button on the bottom left-hand corner of the screen as shown on the previous page. The Setup screen will change to reveal multiple setup tabs. Video Setup tab is displayed by default.

The screenshot displays the 'Video' setup tab. It is divided into several sections:

- Basic Settings:** Includes fields for Camera Name (ANNEXXUS 40W), TV System (NTSC), and Mirror (Off).
- Stream 1 - Primary Streaming:** Configured with Video Codec: H264, Resolution: 720P(1280x720), Frame Rate: 30, CBR Bit Rate: 2112 (kbit/s) [50-8000], H264 GOP: 30 [1-60], and H264 Rate Control Mode: CBR.
- Stream 2 - Secondary Streaming:** Configured with Video Codec: H264, Resolution: CIF(352x240), Frame Rate: 15, CBR Bit Rate: 192 (kbit/s) [50-8000], H264 GOP: 15 [1-60], and H264 Rate Control Mode: CBR.
- Stream 3 - Third Streaming:** Configured with Video Codec: H264, Resolution: CIF(352x240), Frame Rate: 30, CBR Bit Rate: 192 (kbit/s) [50-8000], H264 GOP: 30 [1-60], and H264 Rate Control Mode: CBR.
- Preview:** A live video feed showing a highway with traffic.
- Advance Settings:** Includes White Balance (Auto), White Balance - Manual (R Gain, G Gain, B Gain, all at 64 [0-255]), and Video Adjustments (Brightness, Contrast, Saturation, Sharpness, and Hue sliders).

At the bottom left is a 'Basic Setup' button, and at the bottom right is a camera icon.

Camera Settings:

- **Camera Name:** The name of the camera will be displayed at the top of the Internet browser page.
- **TV System:** NTSC or PAL. To change the setting, access System setup tab.
- **Mirror:** Flips the video image. The options for mirror are:
 - » OFF: Do not use this feature
 - » FLIP: flip images vertically, upside-down.
 - » MIRROR: flip images horizontally, left to right.
 - » BOTH: flip both horizontally and vertically.

Annexus 40W camera series supports triple streaming, where Primary Streaming is the default stream used for video recording and Third Streaming is used for Live Viewing. Each stream can be configured separately.

Note: Enabling Streams 2 and 3 may cause frames being dropped on Stream 1.

Configure Stream 1 - Primary Streaming (Recorded Video):

- Video Codec: Set the compression mode to H264 or MJPEG
- Resolution: Set the resolution of the recorded video to one of the following:
 - » D1 (720×480)
 - » SVGA (800×600)
 - » 720P (1280×720)
- Frame Rate: Set the frame rate for the recorded video to 1, 3, 7.5, 10, 15, or 30 fps
- Bit Rate (for H264 codec): Set the video bit rate from 50-8000 kbit/s
- H264 GOP (for H264 codec): Set the GOP rate from 1-60. The lower the number, the lower the compression the larger the video size. The higher the number, the higher the compression and the smaller the video size. GOP rate determines the i-Frame frequency.
- H264 Rate Control Mode (for H264 codec): VBR (Variable Bit Rate) or CBR (Constant Bit Rate). See p. 21 for details.
- Quality (for MJPEG codec only): HIGH, MID, LOW

Configure Stream 2 - Secondary Streaming:

- Video Codec: Set the compression mode to H264 or MJPEG
- Resolution: Set the resolution of the recorded video to one of the following:
 - » "None" to disable Secondary Streaming
 - » CIF (352 x 240)
 - » VGA (640 x 480)
 - » 4CIF (704 x 480)
 - » D1 (720×480)
 - » SVGA (800×600)
 - » 720P (1280×720)
- Frame Rate: Set the frame rate for the recorded video to 1, 3, 7.5, 15 or 30 fps
- Bit Rate (for H264 codec): Set the video bit rate from 50-8000 kbit/s
- H264 GOP (for H264 codec): Set the GOP rate from 1-60. (Same as Primary)
- H264 Rate Control Mode (for H264 codec): VBR (Variable Bit Rate) or CBR (Constant Bit Rate). See p. 21 for details.
- Quality (for MJPEG codec only): HIGH, MID, LOW

Configure Stream 3 - Third Streaming (Live View):

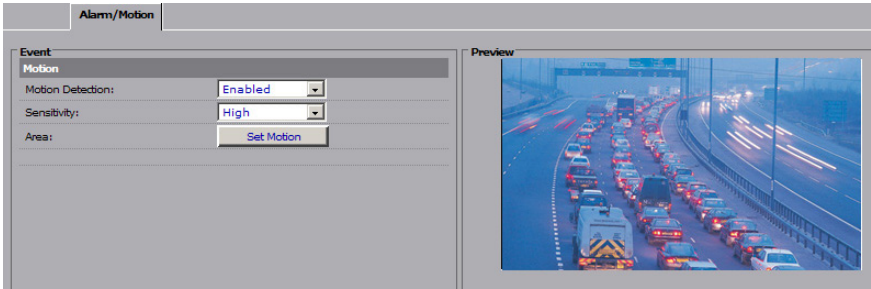
- Video Codec: Set the compression mode to H264 or MJPEG
- Resolution: Set the resolution of the recorded video to one of the following:
 - » "None" to disable Third Streaming
 - » CIF (352 x 240)
 - » VGA (640 x 480)
 - » 4CIF (704 x 480)
 - » D1 (720 x 480)
 - » SVGA (800 x 600)
- Frame Rate: Set the frame rate for the recorded video to 1, 3, 7.5, 15 or 30 fps
- Bit Rate (for H264 codec): Set the video bit rate from 50-8000 kbit/s
- H264 GOP (for H264 codec): Set the GOP rate from 1-60. (Same as Primary)
- H264 Rate Control Mode (for H264 codec): VBR (Variable Bit Rate) or CBR (Constant Bit Rate). See p. 21 for details.
- Quality (for MJPEG codec only): HIGH, MID, LOW

Advance Settings:

- White Balance: Set White Balance mode to **Auto** or **Manual** according to the image's lighting conditions for the best color temperature.
- R Gain, G Gain, B Gain (Use when White Balance is set to Manual):
Adjust levels of red, green and blue in the image.
Values can be set from 0-255
- Brightness: adjust the image brightness level, Values range from 0% to 100%.
- Contrast: adjust the image contrast level. Values range from 0% to 100%.
- Saturation: adjust the image saturation level. Values range from 0% to 100%.
- Sharpness: adjust the image sharpness level. Values range from 0 to 15.
- Hue: adjust the image hue. Values range from 0 to 15.

After making any setting adjustments, remember to click the **Save** button to save any changes made.

5.3 Alarm/Motion (optional)

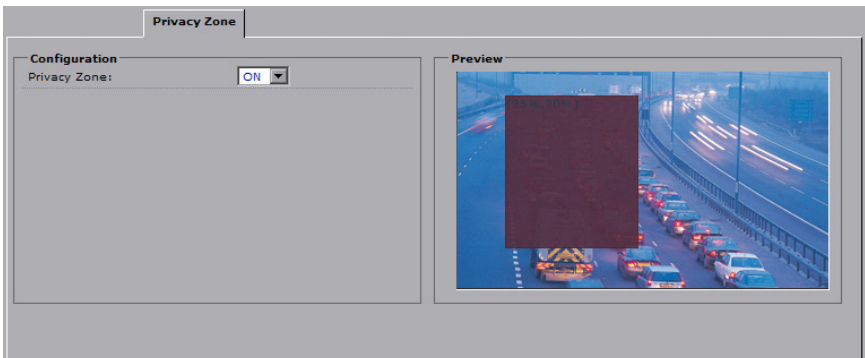


- Motion Detection: Enable or Disable Motion Detection
- Sensitivity: When Enabled, set the Motion Sensitivity to HIGH, MEDIUM, LOW
- Set Motion. Wait for the static image, then click Set Motion button. Any change to the current static image will be recognized as motion.

5.4 Privacy Zone (optional)

In the Privacy Zone setup tab, select an area that needs to be blocked off with a rectangle on Live View and from video recording because of privacy or other concerns. Up to 5 separate Privacy Zones can be configured.

Color Setting: Select between BLACK, GREY and WHITE to determine what color will be used to block out the configured privacy zone.



To draw the privacy zone, follow these instructions:

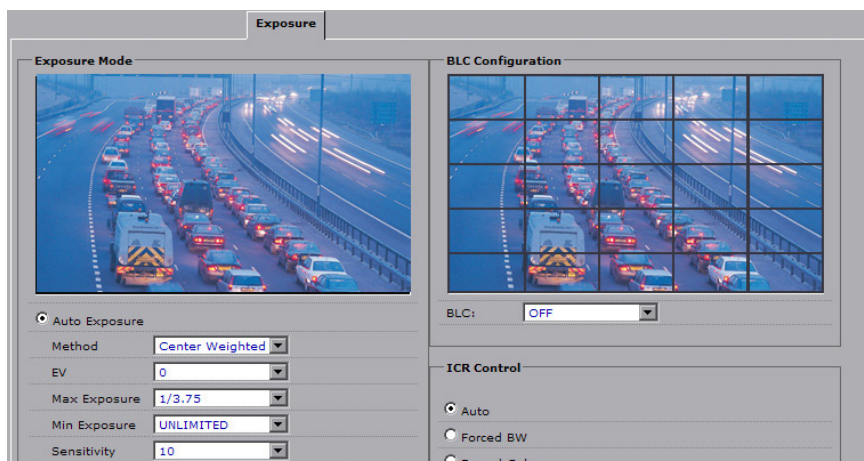
1. Set the Privacy Zone Enable to **ON** to activate a privacy zone.
2. Position your mouse cursor over the Preview window, press and hold the left mouse button.
3. While holding down the left mouse button, drag the cursor to draw a rectangular area over the zone that needs to be concealed.
4. Release the mouse button. The privacy area rectangle will be shaded blue in the Preview window.
5. If you are not satisfied with the size or positioning of the privacy zone, repeat steps 2-4 to re-draw it.
6. Click the **Apply** button
7. Repeat Steps 1-6 for additional Privacy Zones, if using.

After making any setting adjustments, remember to click the **Save** button to save any changes made.



5.5 Exposure

Set the exposure level for your camera. Exposure time determines how much light passes through the camera aperture to the focus.



Auto Exposure: Select this option to correct the exposure automatically.

- Exposure Mode: is set to AES
- Slow Shutter: Set the shutter speed. Acceptable value range is from 1/30 to 1/3.75 sec. Select OFF to disable the feature.
- Max Gain: Set the maximum gain value. The higher value will enhance the video signal. Note that the noise will also be enhanced. Values range from 24 to 36.

Manual Exposure: Select this option to correct the exposure manually.

- Shutter Speed: Set the shutter speed. Acceptable value range is from 1/8000 to 1/60 sec.
- Manual Gain: Set the Manual Gain value. The values range from 0 to 36

Exposure Misc:

- EV: Set exposure value between -2 and 2. Higher values produce brighter images.
- Day Night: Set the Day/Night setting to AUTO, COLOR or BW
- Noise Reduction: Set the Noise Reduction value. The values range from 0 to 255.
- BLC: When parts of the environment are poorly lit, BLC can be configured to compensate for inadequate lighting conditions. To configure the individual areas that will receive compensation, select one of the available options: UPPER 2 3rds, LOWER 2 3rds, CENTER 1 3rd, CENTER 1 6th, LEFT, RIGHT, or FULL. Enabled areas will be shaded in the Preview screen.
- WDR: Set the Wide Dynamic Range Level if desired. The WDR can be turned OFF, or set to HIGH, MIDDLE or LOW.
- Gamma Correction: Gamma Correction can be set to 0.45 or to 1.
- Reset Exposure: Click this button to restore camera default exposure values.

After making any setting adjustments, remember to click the **Save** button to save any changes made.



5.6 Network Recording

Under Network Recording tab, the camera can be configured to send out an email alert every time motion is detected. It can also record video to a configured FTP server based on motion or on pre-set schedule.

Note: Only MJPEG video streams can be used with SMTP & FTP recording options. To set the video stream to MJPEG Video Codec, see Video setup tab.

The screenshot displays the 'Network Recording' configuration window, divided into two main sections: 'SMTP Record' and 'FTP Record'.

SMTP Record Section:

- SMTP Record Conditions:** Set to 'MOTION'.
- SMTP Server:** 'smtp.gmail.com'.
- Login ID:** 'userlogin'.
- Password:** '*****'.
- Sender Email Address:** 'youremail@gmail.com'.
- Port:** '465'.
- Authentication:** 'TLS-TTLS'.
- Note:** Must be at least 1 MJPEG codec stream.
- Condition Settings for Sending E-mail by Motion:**
 - Subject:** 'Motion detected! Cam1'.
 - Message:** 'Motion has been detected on your Ax51 Camera, installed at the rear entrance.'
- Attach Image:** 'ON'.
- Email Address List:**

No.	Enable	Address	Motion
1	ON	user1@companyemail.com	ON
2	ON	user2@yourvniemail.com	ON
3	ON	user3@email.com	ON

FTP Record Section:

- FTP Server:**
 - FTP Record Conditions:** 'MOTION'.
 - FTP Server:** 'ftp.3international.com'.
 - Login ID:** 'guest'.
 - Password:** '****'.
 - FTP Port:** '21'.
- Note:** Must be at least 1 MJPEG codec stream.
- Scheduled Recording Table:**

Day	Setting
Monday	ALL DAY
Tuesday	ALL DAY
Wednesday	ALL DAY
Thursday	ALL DAY
Friday	ALL DAY
Saturday	SCHEDULE1
Sunday	SCHEDULE2
- Scheduled Recording Settings:**

Schedule	Start time	End time
Schedule 1	9 AM	6 AM
Schedule 2	10 AM	4 AM
- Recording Cycle:** 5 (Second).
- File Name:** 'rec_sche'.
- Server Path:** '/cam'.
- Motion Recording Settings:**

Setting	Value
Pre Recording Frame	10
Pre Recording Cycle	30 (Second)
Recording Frame	10
Recording Cycle	2 (Second)
File Name	rec_motion
Server Path	/cam

SMTP Server:

- SMTP Record Condition: Set to MOTION to enable this setting.
- SMTP Server: Enter the SMTP Email Server address
- Login ID: Enter your SMTP Email Server login
- Password: Enter your SMTP Email Server password
- Sender Email Address: Enter your email address
- Port: Enter the SMTP Server port
- Authentication: Select the SMTP Server's authentication type from NO AUTHENTICATION, SMTP PLAIN, LOGIN and TLS-TTLS

Condition Settings for Sending E-mail by Motion:

- Subject: Enter the email subject
- Message: Enter the body of the email message
- Attach Image: Set to ON to attach a snapshot to the motion-triggered email

Email Address List:

- Configure up to three separate email recipients. Set Enable and Motion settings to ON and enter the email address for each of the recipients in the corresponding field.

FTP Server:

- FTP Record Conditions: To enable, set to MOTION or SCHEDULED
- FTP Server: Enter the FTP Server address
- Login ID: Enter the FTP Server login
- Password: Enter the FTP Server Password
- FTP Port: Enter the FTP Port

Scheduled Recording Table:

- Set the recording schedule type for each day of the week: OFF (to disable), ALL DAY, SCHEDULE 1 or SCHEDULE 2. Schedules 1 and 2 are configured directly below.

Scheduled Recording Settings:

- Schedule 1 and Schedule 2: Set the Start Time and End Time for your custom recording schedules.
- Recording Cycle: Set the length of the video clip. Values range between 2 seconds and 120 seconds (2 minutes)
- File Name: Set the default video file name
- Server Path: Set the FTP Server path, where the video recordings will be stored.

Motion Recording Settings:

- Motion Recording Cycle: Set the video recording length (in sec) preceeding the triggered motion. Values range between 1 and 30 seconds.
- Pre Recording Frame: Set the video frame rate for the video preceeding the triggered motion. Values range between 1 and 10 frames per second.
- Recording Cycle: Set the video recording length (in sec) that immediately follows the triggered motion. Values range between 2 seconds and 120 seconds (2 minutes)
- Recording Frame: Set the video frame rate for the video that immediately follows the triggered motion. Values range between 1 and 60 frames per second.
- File Name: Set the default video file name
- Server Path: Set the FTP Server path, where the video recordings will be stored.

After making any setting adjustments, remember to click the **Save** button to save any changes made.



5.7 Communication Setup

The Communication tab is used to configure network and communication settings on the camera.

Communication	
Network Settings	NTP Server setting
DHCP: <input type="text" value="Disabled"/>	NTP Server: <input type="text" value="us.pool.ntp.org"/>
IP Address: <input type="text" value="192.0.0.15"/>	Time Zone: <input type="text" value="GMT-05 Eastern Time"/>
Subnet Mask: <input type="text" value="255.255.255.0"/>	
Default Gateway: <input type="text" value="192.0.0.1"/>	
DNS: <input type="text" value="192.0.0.1"/>	
HTTP Port: <input type="text" value="80"/>	
Physical Address: <input type="text" value="18:f8:7a:00:c3:cb"/>	

Network settings:

- DHCP: Enable or Disable to have the network automatically assign an IP address to the camera.
- IP Address: Manually enter the camera's IP address here.
This option should NOT be used if DHCP is enabled.
- Subnet Mask: Manually enter the camera's Subnet Mask here.
This option should NOT be used if DHCP is enabled.
- Default Gateway: Provide the IP address of the network's router if necessary.
Contact your network administrator for this information.
- DNS: Specify a DNS if necessary.
Contact your network administrator for this information.
- HTTP Port: Use the default Port 80 if possible. Contact your network administrator if the setting needs to be changed.
- Physical Address: This is the camera's unique MAC Address. It may not be changed.

OSD Settings:

- OSD Camera Name: Can be set to ON or OFF
- OSD Date Time: Can be set to ON or OFF

RTSP Settings:

- This area can be configured to allow users get the video stream using third party players, such as VLC with the help of RTSP protocol.

After making any setting adjustments, remember to click the **Save** button to save any changes made.



5.8 User Management

User Management tab displays the list of users that have access to the Annexus camera. The username and password from this setup tab are used when connecting the camera to SRX-Pro Server.

Reminder: Whenever a change is made to the Annexus camera user in the camera's Advanced Setup -> User Management tab, remember to update this information in the *IP Setup tab* of the SRX-Pro Server.

Two types of user permissions exist: **Aministrator** and **Viewer**. Administrator users have access to the camera's setup settings, while Viewer may only view camera live stream. Each camera has one master Administrator user (admin/i3admin) and five additional users that can be assigned either Administrator or Viewer privileges.

The screenshot shows the 'User Management' tab in a software interface. It is divided into two main sections. The left section, titled 'User List', contains a list box with one entry: '1) admin : [Admin]'. Below the list box is a note: 'Note: Maximum allowed users is 10.' and a 'Delete User' button. The right section, titled 'Add/Modify User', contains form fields for 'Username:' (with 'user' entered), 'Password:' (with four dots), and 'Permission:' (with 'Viewer' selected in a dropdown menu). Below these fields is an 'Add User' button. At the bottom of this section is another note: 'Note: Admin is the default account and cannot be deleted.'

Note: The accounts may not be deleted but the passwords and user names can be changed.

5.8.1 Modifying User Accounts

To change the password, user name or permissions type for one of the user accounts, follow instructions below:

1. Select user account in the User List on the left hand side.
2. To change user name, enter new user name in the New Username field in the Modify User area.
3. To change the account password, enter the new password in the *Password* field and *Confirm Password* fields of the Modify User area.
4. To change permission type, select either **Administrator** or **Viewer** in the *Permission* drop-down menu.
5. Click **Update User** button to apply changes.
6. Click **OK** in the confirmation message.

5.9 System Setup

In this section, you can configure basic camera system settings.

The screenshot displays the 'System' configuration tab of a camera. It is divided into two main sections: 'Date & Time' on the left and 'System Information' on the right.

Date & Time Section:

- Time Stamp:** Includes an 'Enable Date and Time Stamp' dropdown menu currently set to 'No'.
- Current Date & Time:** Shows the current date as '10/5/2012' and time as '16:37:13'.
- New Date & Time:** Offers two methods:
 - Set Manually:** Allows setting a new date (10/5/2012) and time (16:31:16).
 - Synchronize with Computer Timer:** Shows the system time as 'Fri Oct 5 16:37:20 EDT 2012'.
 - Synchronize with NTP Server:** Includes a text field for the NTP server ('us.pool.ntp.org') and a dropdown for the time zone ('GMT-05 Eastern Time').

System Information Section:

- Current Version Description:** Lists 'Kernel: Linux version 2.6.18_v1.5.1_I02_I3GUI_02', 'BIOS: U-Boot 1.3.4 (Dec 14 2010 - 10:01:04)', and 'App: AP_01-00-59-10_I02_I3GUI_02'.
- Update firmware:** Includes a text field for the firmware file, a 'Browse...' button, and an 'Update' button.
- Restart and Reset Options:** Includes buttons for 'Restart Camera' (with a warning 'Restart will cause disconnect.'), 'Factory Reset' (with the label 'Reset all settings except network.'), and 'Hard Factory Reset' (with the label 'Reset all settings.').

- Date & Time: Displays the camera's current date and time
- Date formats include: YYYY/MM/DD, MM/DD/YYYY and DD/MM/YYYY.
- New Date & Time: You may choose to...
 - » Set the Date and Time **Manually**
 - » Synchronize Date & Time with **Computer Time** or
 - » Synchronize Date & Time with **NTP Server**. NTP Server and Time Zone can be configured in the Communication Setup tab. *See section 6.3 for details.*

System Information:

This section contains information on the Camera's Model Name and Firmware version. Change the Camera TV System between NTSC and PAL if it currently doesn't match your local standard.

Update Firmware:

All Annexus-series cameras are sold with the most recent version of the firmware already installed. If in the future firmware updates are released, you can update your camera's firmware by first downloading the firmware file from i3 International's website or FTP site. After downloading firmware file, click the **Browse...** button in the camera's System setup tab and locate the new firmware file. Then click the **Update** button and wait while the firmware is being updated on your camera.

Note: Be sure to stop all camera operations prior to an update. Do not turn off power or disconnect from the network during the process.

Click **Restart** Camera after you have updated firmware successfully.

Restart/Reset:

- Click **Restart Camera** to restart your Annexus-series camera. This will cause a temporary disconnect, no video will be recorded while the camera is restarting but all custom settings will be saved. Camera restart is required after the firmware update. After clicking, a pop up will appear asking you to confirm. Click **Yes**.
- Click **Factory Reset** to return all settings, except for the Networking (IP) settings to factory defaults. After clicking, a pop up will appear asking you to confirm. Click **Yes**.
- Click **Hard Factory Reset** to return all camera settings, including IP address, to factory defaults. After clicking, a pop up will appear asking you to confirm. Click **Yes**.

Note: Your Network Camera's default IP address is **192.0.0.16** and the default subnet mask address is **255.255.255.0**.

Export Configuration:

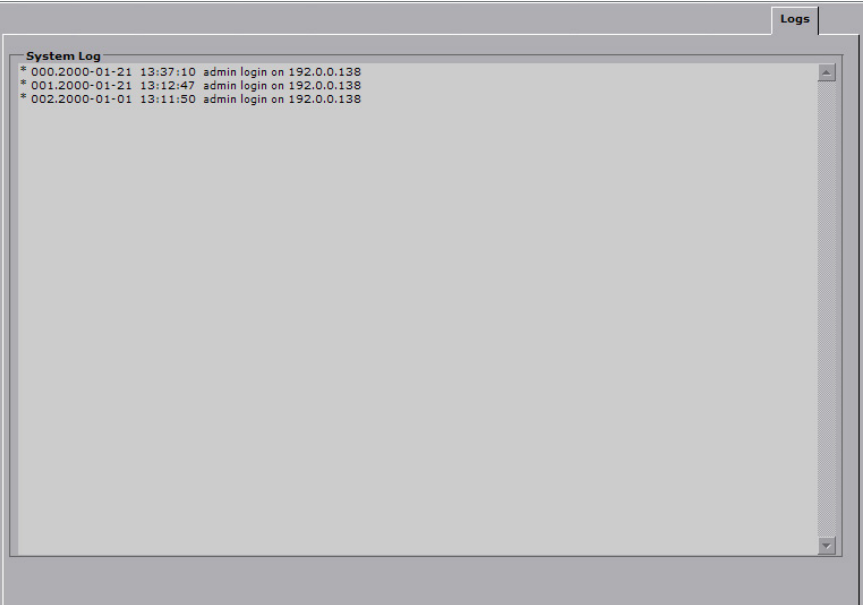
- Click **Export File** to export your camera's settings. If you have multiple cameras of the same model and you would like to apply a set of customer settings to each one, exporting the configuration file may save time.
- Click **Browse** to locate a configuration file to apply new settings to your camera and click **Import File**.

After making any setting adjustments, remember to click the **Save** button to save any changes made.



5.10 Logs

Logs setup tab displays all login and Alarms log records.



6. Specifications

Features/Model	Ax40W2	Ax40W4	Ax40W8
Image System			
Image Sensor	CMOS 1/4" OV9715		
Video Streaming and Compression Method	Triple Streaming: H.264 / Motion JPEG		
Maximum Framerate vs Resolution	NTSC: 720P (1280x720) @ 30 fps; PAL: 720P (1280x720) @ 25 fps		
Resolutions	720P(1280x720), SVGA(800x600), VGA(640x480), D1(NTSC:720x480 / PAL:720x576), 4CIF(NTSC: 704x480 / PAL: 704x576), CIF(NTSC: 352x240 / PAL: 352x288)		
Lens			
View Angle	Built-in Fixed Lens f=2.8mm, F2.0 45° (H), 80° (V)	Built-in Fixed Lens f=3.6mm, F1.8 35° (H), 63° (V)	Built-in Fixed Lens f=8mm, F1.8 16.5° (H), 29.5° (V)
Day/Night Mode	Digital D/N		
Electric			
Shutter Time	1/30 ~ 1/8000 sec. (NTSC); 1/25 ~ 1/8000 sec. (PAL)		
Minimum Illumination	0.2Lux	0.15Lux	0.15Lux
S/N Ratio	50dB (AGC off)		
Gain Control	Off / On, selectable		
White Balance	ATW/2800K ~ 8500K /Manual		
Image Enhancements	Backlight Compensation: Off / On (6 Area selectable); Exposure Mode: Auto/Manual; Sharpness, Saturation, Brightness, Contrast, Hue; Noise Reduction; WDR: Digital WDR. Off/High/Mid/Low; Digital Noise Reduction: 3D		
Other Features			
Privacy Zone	Yes		
Gamma Correction	0.45		
Motion Detection	Yes		
Image Orientation	Mirror, Flip		
Other	System Log, FTP Record, Email Notification, User Management		

The specifications are subjects to be change without notice

6. Specifications (cont.)

Features/Model	Ax40W2	Ax40W4	Ax40W8
Network Specifications			
Network Protocols	IPv4, HTTP/HTTPS, TCP, RTSP/RTCP/ RTP, ICMP, UDP, IGMP, DNS, DHCP, ARP, NTP, SNMP, UPnP, SMTP		
Security Access	Two user access levels with password protection. 1 Administrator, 5 Viewers		
Web Browsing Requirements	Internet Explorer 8.0 or above		
Mechanism			
Dimensions	ø110 mm x 46 mm (H) (ø4.33" x 1.8" (H))		
Weight	approx. 340g (0.75lb)		
Connectors	Network: RJ45 (Female); Buttons: Reset, Default (On top)		
Video Port/Output	1 x Inside Service Port with 2 pin connector, 1.0Vp-p, 75Ω		
Power Supply			
Power Requirement	PoE IEEE 802.3af Class 0, DC 12V		
Power Consumption (max.)	6.6W		
Environment			
Operating Temperature	-10°C ~ 40°C (14°F ~ 104°F)		
Operating Humidity	10 ~ 90% RH		
Storage Temperature	-20°C ~ 60°C (-4°F ~ 140 °F)		
Storage Humidity	90% non-condensing		
Regulations, Ratings	CE/FCC Class B, ONVIF, IP66, UL (if used indoors)		



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